

STRUCTURE OF THE STUDY PROGRAM

Table 1. Schedule of courses by semesters and years of study

No.	Course Code	Course Title	Semester	Weekly fund of lessons		ECTS
				L	E	
FIRST YEAR						
1	23IAP11A010	Fundamentals of Programming	1	2	3	6
2	23IAP11A020	Calculus and Linear Algebra	1	2	3	6
3	23IAP11A030	Internet Technologies	1	2	3	6
4	23IAP11A040	Digital Technology	1	2	3	6
5	23IAP11B0X0	Elective Course	1	2	3	6
6	23IAP12A011	Object Oriented Programming	2	2	3	6
7	23IAP12A021	Discrete Mathematics and Its Application in Programming	2	2	3	6
8	23IAP12A031	Functional Programming	2	2	3	6
9	23IAP12A040	Multimedia Tools	2	2	3	6
10	23IAP12A0XX	Elective Course	2	2	3	6
Total hours (lectures/exercises) and ECTS for year				20	30	60

No.	Course Code	Course Title	Semester	Weekly fund of lessons		EKTC
				L	E	
SECOND YEAR						
1	23IAP13A011	Computer Architecture and Organization	3	2	3	6
2	23IAP13A022	User Interface Programming	3	2	3	6
3	23IAP13A032	Algorithms and Data Structures	3	2	3	6
4	23IAP13A042	Internet Programming 1	3	2	3	6
5	23IAP13B0XX	Elective Course	3	2	3	6
6	23IAP14A013	Software Engineering	4	2	3	6
7	23IAP14A022	Scripting Languages Programming	4	2	3	6
8	23IAP14A033	Databases	4	2	3	6
9	23IAP14A041	Computer Networks	4	2	3	6
10	23IAP14B0X0	Elective Course	4	2	3	6
Total hours (lectures/exercises) and ECTS for year				20	30	60

No.	Course Code	Course Title	Semester	Weekly fund of lessons		EKTC
				L	E	
THIRD YEAR						
1	23IAP15A013	Visual Programming	3	2	3	6
2	23IAP15A022	Mobile Application Programming	3	2	3	6
3	23IAP15A032	Java Programming	3	2	3	6
4	23IAP15A043	Internet Programming 2	3	2	3	6
5	23IAP15B0XX	Elective Course	3	2	3	6
6	23IAP16A014	Data Mining	4	2	3	6
7	23IAP16A024	Software Project Management	4	2	3	6
8	23IAP16A033	Artificial Intelligence	4	2	3	6
9	23IAP16A040	Graduation Thesis	4	2	3	6
10	23IAP16B0XX	Elective Course	4	2	3	6
Total hours (lectures/exercises) and ECTS for year				20	30	60

Table 2. Elective courses of the study program

No.	Course Code	Course Title	Semester	Weekly fund of lessons		ECTS	unit
				L	E		
1	23IAP11B050	English for Specific Purposes 1	1	2	3	6	FIS
2	23IAP11B060	Fundamentals of Web Design	1	2	3	6	FIS
3	23IAP12B051	English for Specific Purposes 2	2	2	3	6	FIS
4	23IAP12B060	Computer Electronic Elements	2	2	3	6	FIS
5	23IAP13B052	Operating Systems	3	2	3	6	FIS
6	23IAP13B061	Fundamentals of Probability and Statistics	3	2	3	6	FIS
7	23IAP14B050	Macedonian Language and Academic Writing	4	2	3	6	FIS
8	23IAP14B060	Electronic and Mobile Commerce	4	2	3	6	FIS
9	23IAP15B052	Introduction to Cryptography	5	2	3	6	FIS
10	23IAP15B063	Advanced Algorithms	5	2	3	6	FIS
11	23IAP16B054	Advanced Databases	6	2	3	6	FIS
12	23IAP16B060	Distributed Systems and Cloud Computing	6	2	3	6	FIS
In total:						72	